ELSEVIER

Volume 535 issues 1–2, 11 April 2005

ANALYTICA CHIMICA ACTA

www.elsevier.com/locate/aca

CONTENTS

(Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database available on STN International; Abstracted, indexed in: Aluminium Abstracts; Anal. Abstr.; Biol. Abstr.; BIOSIS; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Engineered Materials Abstracts; Excerpta Medica; Index Med.; Life Sci.; Mass Spectrum. Bull.; Material Business Alerts; Metals Abstracts; Sci. Citation Index)

Electroanalytical chemistry

Electrochemical measurement of endogenously produced nitric oxide in brain slices using Nafion/*o*-phenylenediamine modified carbon fiber microelectrodes
N.R. Ferreira, A. Ledo, J.G. Frade (Coimbra, Portugal), G.A. Gerhardt, (Lexington, KY, USA) J. Laranjinha (Coimbra, Portugal) and R.M. Barbosa (Coimbra, Portugal) 1

Adsorptive stripping voltammetric measurements of trace uranium at the bismuth film electrode
L. Lin, S. Thongngamdee, J. Wang (Tempe, AZ, USA), Y. Lin (Richland, WA, USA), O.A. Sadik (Binghamton, NY, USA) and S.-Y. Ly (Seoul, South Korea) 9

Nanocomposite films containing Au nanoparticles formed by electrochemical reduction of metal ions in the multilayer films as electrocatalyst for dioxygen reduction
M. Huang, Y. Shen, W. Cheng, Y. Shao, X. Sun, B. Liu and S. Dong (Jilin, China) 15

Food and wine analysis

Analysis of major components of residual bacitracin and colistin in food samples by liquid chromatography tandem mass spectrometry
D.W.-m. Sin, C. Ho, Y.-c. Wong, S.-k. Ho and A.C.-b. Ip (Hong Kong, China) 23

Screening, determination and confirmation of chloramphenicol in seafood, meat and honey using ELISA, HPLC–UVD, GC–ECD, GC–MS–EI–SIM and GCMS–NCI–SIM methods
H.-Y. Shen and H.-L. Jiang (Zhejiang, PR China) 33

ELISA qualitative screening of chloramphenicol in muscle, eggs, honey and milk: method validation according to the Commission Decision 2002/657/EC criteria
G. Scortichini, L. Annunziata (Teramo, Italy), M.N. Haouet, F. Benedetti (Perugia, Italy), I. Krusteva (Teramo, Italy) and R. Galarini (Perugia, Italy) 43

Determination of selenium species in infant formulas and dietetic supplements using liquid chromatography–hydride generation atomic fluorescence spectrometry
P. Viñas, I. López-García, B. Merino-Meroño, N. Campillo and M. Hernández-Córdoba (Murcia, Spain) 49

EDTA determination in pharmaceutical formulations and canned foods based on ion chromatography with suppressed conductimetric detection
A.A. Krokidis, N.C. Megoulas and M.A. Koupparis (Athens, Greece) 57

Determination of free and total sulphur dioxide in wine by use of an amalgamated piezoelectric sensor
B. Palenzuela (Córdoba, Spain), B.M. Simonet (Girona, Spain), A. Ríos (Ciudad Real, Spain) and M. Valcárcel (Córdoba, Spain) 65

Use of magnetic resonance spectroscopy for the investigation of the CO_2 dissolved in champagne and sparkling wines: a nondestructive and unintrusive method
G. Autret (Gif-sur-Yvette, France), G. Liger-Belair, J.-M. Nuzillard, M. Parmentier, A.D. de Montreynaud, P. Jeandet (Reims, France), B.-T. Doan (Gif-sur-Yvette, France) and J.-C. Beloeil (Orléans, France) 73

Pharmaceutical analysis

Infrared hyperspectral imaging for qualitative analysis of pharmaceutical solid forms
Y. Roggo, A. Edmond, P. Chalus and M. Ulmschneider (Basel, Switzerland) 79

Identification of the components of 16-membered macrolide antibiotics by LC/MS
M. Hu (Wuhan, PR China) and C.-Q. Hu (Beijing, PR China) 89

Determination of thiazinamium, promazine and promethazine in pharmaceutical formulations using a CZE method
F.J. Lara, A.M. García-Campaña, F. Alés-Barrero and J.M. Bosque-Sendra (Granada, Spain) 101

Field flow fractionation

High resolution ICPMS as an on-line detector for flow field-flow fractionation; multi-element determination of colloidal size distributions in a natural water sample
B. Stolpe, M. Hassellöv, K. Andersson and D.R. Turner (Göteborg, Sweden) 109

doi:10.1016/S0003-2670(05)00466-6

Near-infrared spectroscopy
Analysis of coal by diffuse reflectance near-infrared spectroscopy
J.M. Andrés and M.T. Bona (Zaragoza, Spain) 123

Screening for colorants
An automated screening method for the fast, simple discrimination between natural and artificial colorants in commercial saffron products
M. Zougagh (Córdoba, Spain), A. Ríos (Ciudad Real, Spain) and M. Valcárcel (Córdoba, Spain) 133

Chemiluminescence and fluorescence
Chemiluminescent high-throughput microassay for evaluation of acetylcholinesterase inhibitors
M. Guardigli, P. Pasini, M. Mirasoli, A. Leoni, A. Andreani and A. Roda (Bologna, Italy) 139
An energy-transfer cataluminescence reaction on nanosized catalysts and its application to chemical sensors
Z. Zhang, K. Xu (Beijing, PR China), W.R.G. Baeyens (Ghent, Belgium) and X. Zhang (Beijing, PR China) 145
Chemiluminescence detection of amino acids using an Edman-type reagent, 4-(1′-cyanoisoindolyl)phenylisothiocyanate
M. Kai, M. Morizono, M.N. Wainaina, T. Kabashima (Nagasaki, Japan), M.K. Lee (Cheongju, South Korea) and J. Lu (Shanghai, PR China) . 153
Implementation of flow-through solid phase spectroscopic transduction with photochemically induced fluorescence: determination of thiamine
J. López-Flores, M.L. Fernández-De Córdova and A. Molina-Díaz (Jaén, Spain) 161

Light scattering
Resonance Rayleigh scattering spectra of interaction of sodium carboxymethylcellulose with cationic acridine dyes and their analytical applications
S.P. Liu (Chongqing, PR China), S. Chen (Chongqing, PR China and Zhongshan, PR China), Z.F. Liu, X.L. Hu and T.S. Li (Chongqing, PR China) 169

Visible spectrophotometry
Sequential spectrophotometric determination of paracetamol and *p*-aminophenol with 2,2′-(1,4-phenylenedivinylene) bis-8-hydroxyquinoline as a novel coupling reagent after microwave assisted hydrolysis
H. Filik (Istanbul, Turkey), M. Hayvali and E. Kilic (Ankara, Turkey) 177
Highly selective chromogenic ionophores for the recognition of chromium(III) based on a water-soluble azocalixarene derivative
L. Lu (Wuhan, PR China), S. Zhu (Beijing, PR China), X. Liu (Wuhan, PR China), Z. Xie and X. Yan (Beijing, PR China) 183

Acetone in breath
Determination of acetone in breath
N. Teshima, J. Li, K. Toda and P.K. Dasgupta (Lubbock, TX, USA) 189

Archaeometry
Microanalytical characterization of surface decoration in Majolica pottery
R. Padilla (Havana, Cuba), O. Schalm, K. Janssens (Antwerp, Belgium), R. Arrazcaeta (Habana, Cuba) and P. Van Espen (Antwerp, Belgium) 201

Enzyme-based analysis
Flow-injection system with glucose oxidase immobilized on a tubular reactor for determination of glucose in blood samples
A.C.A. de Oliveira, V.C. Assis, M.A.C. Matos and R.C. Matos (Juiz de Fora, Brazil) 213
Development of a flow-through enzyme-linked immunosorbent assay and a dipstick assay for the rapid detection of the insecticide carbaryl
S. Wang, C. Zhang and Y. Zhang (Tianjin, PR China) 219

Speciation analysis
A rapid and novel alternative to conventional sample treatment for arsenic speciation in rice using enzymatic ultrasonic probe
E. Sanz, R. Muñoz-Olivas and C. Cámara (Madrid, Spain) 227
Speciation of bio-available chromium in soils by solid-phase extraction and graphite furnace atomic absorption spectrometry
G. Hu and R.L. Deming (Fullerton, CA, USA) 237

Extraction processes
Optimization of aqueous acetylation for determination of hydroxy polycyclic aromatic hydrocarbons in water by stir bar sorptive extraction and thermal desorption–gas chromatography–mass spectrometry
N. Itoh, H. Tao and T. Ibusuki (Tsukuba, Japan) 243
Extraction of phenols and phenyl acetates with diethyl carbonate
J. Olejniczak, J. Staniewski and J. Szymanowski (Poznań, Poland) 251

Chemometrics
Comparative classification study of toxicity mechanisms using support vector machines and radial basis function neural networks
X.J. Yao (Paris, France and Lanzhou, China), A. Panaye, J.P. Doucet, H.F. Chen (Paris, France), R.S. Zhang (Lanzhou, China), B.T. Fan (Paris, France), M.C. Liu and Z.D. Hu (Lanzhou, China) 259
Net analyte signal–artificial neural network (NAS–ANN) model for efficient nonlinear multivariate calibration
B. Hemmateenejad (Shiraz, Iran), M.A. Safarpour and A. Mohammad Mehranpour (Boushehr, Iran) 275
Multicomponent determinations using addition-generated reagent profiles and partial least squares regression
R. García (San Sebastián, Spain), G. López-Cueto (Alicante, Spain), M. Ostra and C. Ubide (Sebastián, Spain) 287

Radiochemical analysis
Determination of ^{63}Ni and ^{55}Fe in nuclear waste samples using radiochemical separation and liquid scintillation counting
X. Hou, L.F. Østergaard and S.P. Nielsen (Roskilde, Denmark) 297

Analysis of reference materials by prompt γ-ray neutron activation analysis and evaluation of sample-dependent background
K. Sudarshan, R. Tripathi, A.G.C. Nair, R. Acharya, A.V.R. Reddy and A. Goswami (Maharashtra, India) 309

Rock analysis
Comparison of alkaline fusion and acid digestion methods for the determination of rhenium in rock and soil samples by ICP-MS
S. Uchida, K. Tagami (Chiba, Japan) and K. Tabei (Tokyo, Japan) 317
An empirical calibration for ^{4}He quantification in minerals and rocks by laser fusion and noble gas mass spectrometry using Cerro de Mercado (Durango, Mexico) fluorapatite as a standard
J. Solé and T. Pi (D.F., Mexico) 325

ESR spectroscopy
ESR identification of γ-irradiated redoxon and determination of ESR parameters of radicals produced in irradiated ascorbic acid
M. Polat and M. Korkmaz (Ankara, Turkey) 331

Author Index 339

Calendar of forthcoming meetings N1

CONTENTS Direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: **http://contentsdirect.elsevier.com**

SCIENCE DIRECT®

Full text of this journal is available, on-line from **ScienceDirect**. Visit **www.sciencedirect.com** for more information.